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TITLE: INSPECTION METHOD FOR WIRING BOARD
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ABSTRACT:

PURPOSE: To allow accurate inspection of conduction and impurities by irradiating one point of a wiring pattern with an electron beam while another point with a positive ion beam and then detecting emitted electrons.

CONSTITUTION: In the inspection of a wiring pattern 5 on

a wiring board 4,
one point of the wiring pattern is irradiated with an
electron beam generated
from a generating means 1 while a different point is
irradiated with a positive
ion beam generated from a generating means 2 and then the
quantity or energy of
electrons emitted therefrom is measured through a detecting
means 3. When the
wiring is conducting, potential drop due to the electron
beam is offset by
potential rise due to the positive ion beam to keep the
potential on the wiring
pattern 5 constant thus increasing the secondary electron
emission quantity as
compared with nonconducting state. Consequently,
discrimination can be made
between conduction and nonconduction. Furthermore, Auger
electrons are also
emitted. Since the energy thereof is determined depending
on the combination
of target substance and the type of particles used in the
irradiation, the
impurities are detected and the substance is specified
based on the measurement
of energy.

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